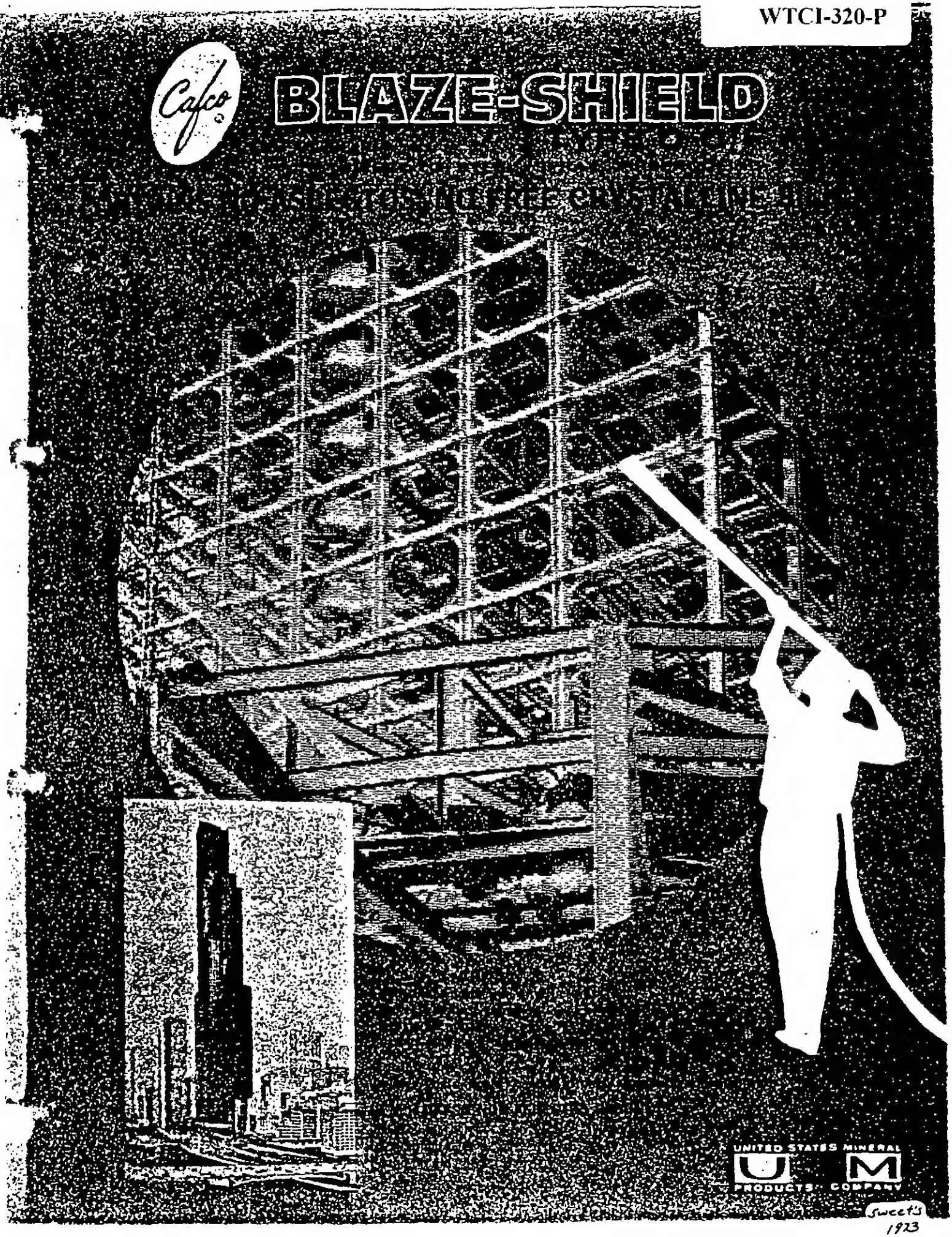
Cafco

BLAZE-SHIELD



UNITED STATES MINERAL PRODUCTS COMPANY

Sweet's 1923

BLAZE-SHIELD
TYPE D C/F

CAFCO BLAZE-SHIELD Type D C/F is a factory formulated blend of manufactured virgin mineral fibers and proprietary binders designed specifically for direct-to-steel fireproofing. It also has excellent thermal insulation and acoustical absorption properties—often eliminating the need for supplemental insulation or acoustical materials. Particularly suitable for large, long-span structures, one coat can be built up to any U.L. required thickness.

Type D C/F exceeds U.S. Government requirements for use in air handling plenum chambers. It maintains high bond strength under normal structural movement, and will not crack or spall, dust or flake. It provides deflection and bond-impact characteristics for building occupancy.

It is economical to apply and normally does not require a primary adhesive, tamping or a sealer coat, and can usually be applied from floor level, without scaffolding.

CHARACTERISTICS

Environmental safety—Studies conducted by expert medical authorities, have shown that there is no hazard to the health of workers or the public in typical applications.

Fire rating by U.L.—Type D C/F is listed by U.L. for virtually any combination of column, beam or floor assemblies.

Fire hazard: Tested and reported in accordance with ASTM E-84 by Underwriters' Laboratories, Inc.

Resistance to air erosion—Resists erosion, dusting or flaking due to high velocity air movement. It exceeds GSA requirements.

Dry density—Average 15 p.c.f: U.L., Inc. lists 13 p.c.f. minimum average density.

One coat application—Proper U.L. required thicknesses typically can be applied in one pass.

Thermal properties—Type D C/F has a K factor of 0.29 at 75°F. Independent laboratory tests available.

Acoustical absorption—The problem of sound transmission through the plenum space is markedly reduced. The conventional D C/F job affords an NRC rating of 0.85.

Protection against corrosion—Independent laboratory tests confirm that GSA requirements are met or exceeded.

GUIDE SPECIFICATIONS

1. Scope

1.2 Work Included

Provide all labor, materials and equipment required for complete installation of all sprayed fireproofing and related work as shown on the drawings or specified herein, and in accordance with all applicable requirements of the Contract Documents.

1.2 Work Not Included

a) If cleaning required.
b) Heating for cold weather applications.
c) Utilities.

1.3 The material and installation shall conform to the building code requirements and to authorities having jurisdiction.

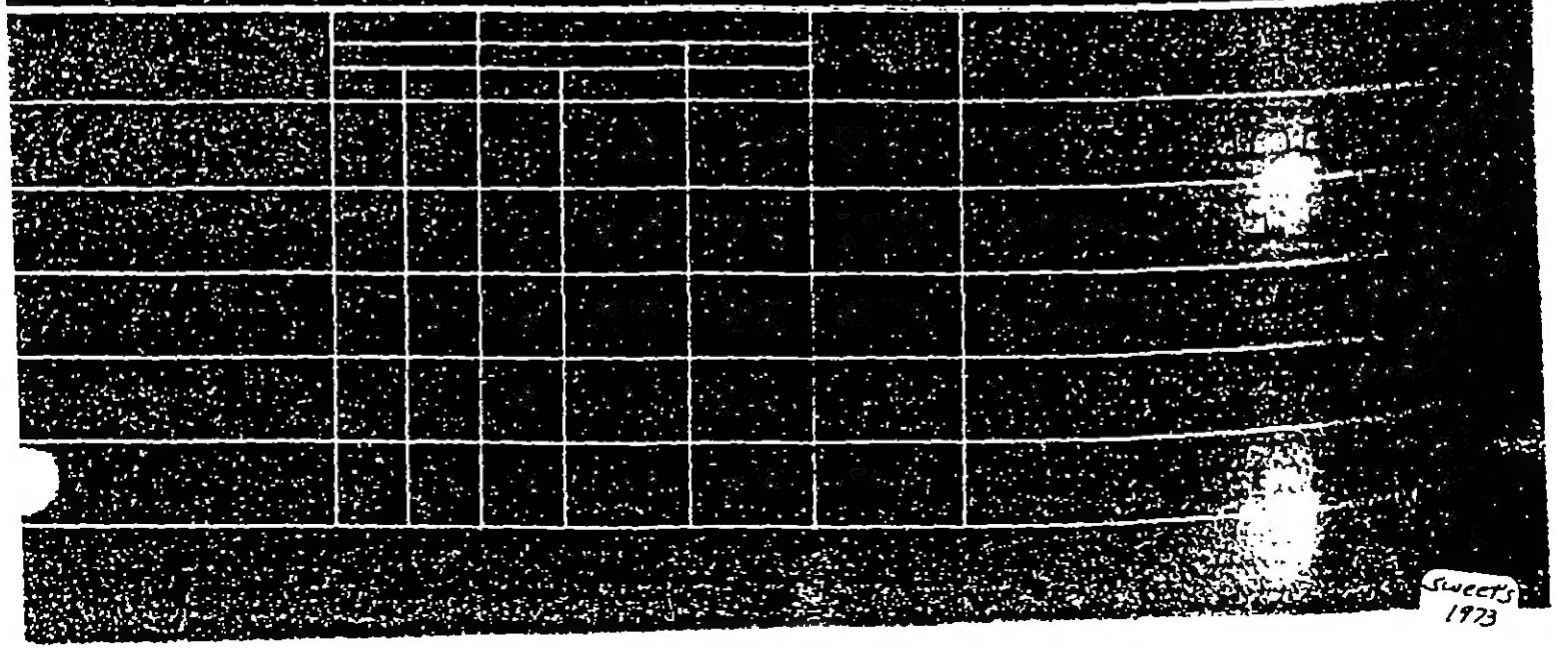
2. Materials

2.1 The sprayed fireproofing material shall be CAFCO BLAZE-SHIELD Type D C/F as manufactured by United States Mineral Products Company (in Canada—Columbia Acoustics & Fireproofing Co., Ltd.)

2.2 The material shall be delivered to the job site in sealed bags, labelled as to application and manufacturer. Materials shall be stored in a dry place.

2.3 Water shall be clean, fresh and free from organic and mineral impurities which would be harmful to the sprayed fireproofing material.

TABLE OF FIRE RESISTANCE RATINGS



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3. Contractor

The fireproofing contractor shall be licensed by the manufacturer of the material and be skilled in this type of application. He shall execute all work in accordance with the manufacturer's recommendations.

4. Standards of Performance

4.1 The material shall have been tested by U.L. in accordance with ASTM E-119.

4.2 The material shall contain no asbestos, no free crystalline silica, and no mica.

4.3 Minimum bond strength shall be 20 times the weight of the material.

4.4 The material shall meet or exceed the GSA requirements for air erosion.

4.5 Material shall not crack or delaminate when downward deflection is $\frac{1}{120}$ of the span or less.

4.6 Material must meet the requirements of ASTM E-72.

4.7 Material must meet or exceed GSA corrosion resistance requirements.

5. Field Tests

5.1 The architect will select and the owner will pay an independent testing laboratory, to sample and verify the direct-to-steel fireproofing as applied on the job for the following:

a) thicknesses
b) density
c) patching

5.2 The results of the above tests shall be made available to all parties at the completion of each floor.

6. Samples

Representative samples shall be submitted for approval.

7. Installation

7.1 Application shall be in accordance with U.L. fire test report and Manufacturer's recommendations.

7.2 All surfaces to which sprayed fireproofing will be applied shall be thoroughly cleaned of oil, grease, dirt, loose paint, mill scale or any other matter which would impair bond.

7.3 All surfaces shall be pre-wetted with water, the fireproofing material shall then be sprayed to the required thicknesses. The material is then lightly sprayed with water. Adhesive, tamping, and sealer are only required in special applications.

7.4 All clips, hangers, supports, sleeves are to be installed by others prior to application of the fireproofing material.

7.5 All ducts, piping, conduit, etc. shall be installed after the application of the sprayed fireproofing.

7.6 All patching required by other trades work shall be done by this contractor and paid for by the contractor responsible.

7.7 The contractor shall fully cooperate in the coordination and scheduling of the job.

8. Temperature Requirements

The ambient air temperature and the temperature of the substrate shall not be less than 40°F during application and for 24 hours after.

9. Clean-up

After completion of each day's work, the contractor shall sweep clean the working area, placing the waste material in suitable bags or containers for removal by others.

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OTHER CAFCO PRODUCTS CONTAINING NO ASBESTOS- NO FREE CRYSTALLINE SILICA

for fireproofing, sound absorption and thermal insulation

DECK-SHIELD C/F
Spray fireproofing for large surface areas

DECK-SHIELD is specifically formulated for spray application use on metal building walls, roof deck and ceiling design without concrete toppings, and ship bulkheads.

FEATURES

Metal Walls Listing: UL Design Nos. U801 & U803.

Roof Deck Listing: UL Design No. P801.

Other Designs: D831; D832; D833; D840; N803; N805; X818.

Quick Hardening: DECK-SHIELD C/F sets up hard in approximately ONE hour, eliminating delays so that other work may proceed immediately.

POWER-SHIELD C/F
Thermal insulation for ambient to 1400°F

Spray POWER-SHIELD C/F thermal insulation on power-generating or process equipment such as boilers, turbines, tanks, ovens, dryers . . . even chimneys. It can be applied in any thickness to virtually any shape or contour.

FEATURES

Efficient thermal insulation. Provides "k" factors of 0.26 and 0.53 at 75° and 500°F. mean test temperatures, respectively. Can be applied to equipment already in operation at temperatures to 600°F. Service temperature range is ambient to 1400°F.

Economical installation. Spray application appreciably reduces installation costs. Eliminates cutting, fitting, laminating, staggering and securing separate slabs and pieces of insulating material.

Joint-free coating. Monolithic coating has no seams at which heat losses can occur. There are no voids or crevices in which corrosive condensation can form.

Permanence. POWER-SHIELD C/F is inorganic, chemically stable and flexible enough to expand and contract with the equipment it covers without cracking or spalling.

SOUND-SHIELD "85"
Sprayed acoustical ceilings

Use SOUND-SHIELD "85" for acoustical treatment of ceilings and walls of virtually any contour. It has a hard white attractive finish, is U.L. fireproof tested and listed and provides thermal insulation as an extra bonus. (k) factor at 75 F. is 0.34. See catalog in Sweet's Architectural File Unit.

FEATURES

Can be applied to concrete, plaster, metal, plaster, metal lath.

Provides NRC ratings as high as 0.85 [illegible] inch thick

Surface hardness equivalent to plaster

Natural light reflectance rating is 76 percent.

Fibrous lime base composition prevents rust stains through.

CAFCO SOUND-SHIELD "85" installations include the University of Notre Dame Athletic and Convocation Center.

TABLE OF SOUND ABSORPTION

Thickness	Base	Frequency (Hz) 125	250	500	1000	[illegible]	[illegible]	NRC Rating
		Coefficient Ratings						
½"	Metal Lath	26	51	98	99	[illegible]	[illegible]	80
½"	M/L and Plaster*	.39	.61	.61	.78	91	91	75
½"	Solid	.03	.17	.50	79	84	78	60
⅜"	Solid	.02	.08	.26	60	84	69	45
¼"	Solid	.04	.04	.20	39	60	51	30

Tests conducted in accordance with ASTM-C-423-66T by Riverbank Acoustical Laboratories, Geneva, Illinois and Cedar Knolls Acoustical Laboratories, Cedar Knolls, New Jersey.
*A stiffening plaster basecoat of minimum [illegible] hardness.

CAFCO FIELD ASSISTANCE SERVICE

Users and specifiers of CAFCO products can count on assistance from one of the largest contractor and service organizations in the world. Experienced, licensed CAFCO contractors and representatives are available to serve you throughout the United States and Canada, and in 38 foreign countries. CAFCO service personnel will answer your questions concerning estimates, specifications and code approvals. A job-inspection service is available to architects, general contractors and owners. Look to the CAFCO field service program for prompt, knowledgeable assistance designed to help you keep planning and construction schedules on target.

UNITED STATES GYPSUM
Sweet's 1973